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U.S. Department of Transportation Dockets,
Docket No. FAA-1999-6411, -37
400 Seventh Street, SW.,
Room Plaza 401,
Washington, DC 20590

Ladies and Gentlemen,

Subject: Fuel Tank System Design Review, Flammability Reduction, and Maintenance and Inspection Requirements - Notice of Proposed Rulemaking 99-18

Aircraft fuel system safety is of primary importance to Fedex and it is our intention to do whatever is necessary and practical to ensure the highest level of safety possible. To this end, we have been actively involved in numbers of activities that we feel will improve the overall fuel system safety of our aircraft. We have conducted fuel tank inspections and performed various modifications. We have also been involved with the industry Fuel System Safety Program at both the working group and leadership committee levels. Much time, manpower, and money have been expended in this effort.

Fedex agrees with the general intent of NPRM 99-18. However, we disagree with the approach that is taken in certain areas and believe that better methods may be employed for effectively accomplishing the goal of improving fuel system safety. The Industry response to NPRM 99-18, authored by the Fuel System Safety Program Leadership Team, presents a workable, effective solution to the concerns raised by the FAA and the NTSB. We endorse the Industry response to the NPRM and encourage the FAA to adopt the recommendations that have been made.

Specific Concerns with the Proposed Rule

Some proposed requirements in the NPRM are of special concern to Fedex. Most are dealt with in the Industry response; however, we would like to comment on certain issues.

A. Design Reviews - STCs and Field Approvals

The NPRM requires a safety analysis to be conducted for all fuel system STCs and field approvals. It also states that "...the FAA intends that a fuel tank system safety review be conducted for any *modification* to the ***airplane*** that may affect the safety of the fuel tank system." In many cases this requirement would be impossible to comply with. The data necessary to make this determination simply does not exist for older airplanes that have been owned/operated by various entities.

We strongly agree with the recommendations made in the Industry response for non-fuel system STCs. The only way to make a valid determination of the integrity of the fuel system is by performing a detailed fuel system inspection. This will be time consuming and costly; however, we believe this is the only realistic way one can ensure that potential ignition sources are identified and corrected.

B. Compliance Times

In effect, the NPRM states that within six months of the completion of the OEM's and STC holder's safety reviews, operators are to have their fuel system maintenance programs revised, reviewed, work cards developed, and approved by their PMI. In the first place, the OEMs will not be able to perform safety reviews and develop maintenance program changes in the 12 months allotted by the NPRM. Secondly, our own internal processes that are in place to ensure maintenance program changes are handled correctly will require much more manpower and time than what was estimated in the NPRM. To make major revisions to the maintenance programs of all our aircraft and to receive PMI approval will take much longer than six months. Again, we strongly recommend the FAA accept the Industry recommendations for compliance.

C. NPRM Cost Analysis

The main concern with the cost analysis section of the NPRM is that it does not consider all the costs that will result from this SFAR and we believe it should do so. Many of the high cost items such as aircraft modifications and "hard timing" of components are not included. The cost analysis takes credit for the benefits that will result from these modifications, therefore, the costs should be included as well. Otherwise the cost analysis is greatly flawed.

Fedex owns approximately 160 B727 aircraft. As a result of the proposed SFAR, some of the B727 modifications that might be mandated are replacement of the analog FQIS with a digital FQIS; installation of current suppression devices; installation of flame arrestors; and possibly replacement of fuel boost pumps. The cost for these modifications alone, based on data received from the equipment manufacturers, is approximately $125,000 per airplane. Since some of our aircraft already have DFQIS installed, the cost to modify our B727s would be approximately $17,000,000. This does not include

other B727 modifications that might be mandated. The point being made is that this is the modification cost for just one aircraft type for one airline. If we include all costs for all U.S. registered aircraft, the result will be far greater than that given in the NPRM.

Another aspect of the cost analysis that needs to be adjusted deals with in-tank inspections. The NPRM assumes much of the in-tank inspection work will be accomplished during heavy checks when the tanks are open and purged. On some Fedex aircraft, the tanks are opened only once every eight years for scheduled maintenance. Therefore, if in-tank inspections are mandated, some aircraft will have to be removed from scheduled service. Also, the costs associated with preparing tanks for entry will have to be considered.

Finally, Fedex would like to point out that the cost/benefit model used in the NPRM does not consider the differences between passenger operators and cargo operators. We believe some consideration should be given to this.

Thank you for the opportunity to comment on NPRM 99-18. Please contact us if there are any questions concerning this response.

Michael Aldrich

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